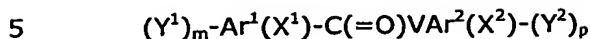


CLAIMS

1. A compound of the formula



and salts thereof;

wherein Ar^1 and Ar^2 independently are selected from aryl and heteroaryl;

10

V designates $-CH_2-CH_2-$, $-CH=CH-$ or $-C\equiv C-$;

m is a whole number selected from the group consisting of 0, 1, and 2,

15

p is a whole number selected from the group consisting of 0, 1, and 2,

wherein the sum of m and p is at least 1;

each Y^1 is independently selected from an amino-functional substituent of the formula

20



each Y^2 is independently selected from an amino-functional substituent of the formula

25



wherein Z is a biradical $-(C(R^H)_2)_n-$, wherein n is an integer in the range of 1-6, and each R^H is independently selected from hydrogen and C_{1-6} -alkyl, or wherein $(R^H)_2$ is $=O$;

30 R^1 and R^2 independently are selected from hydrogen, optionally substituted C_{1-12} -alkyl, optionally substituted C_{2-12} -alkenyl, optionally substituted C_{4-12} -alkadienyl, optionally substituted C_{6-12} -alkatrienyl, optionally substituted C_{2-12} -alkynyl, optionally substituted C_{1-12} -alkoxycarbonyl, optionally substituted C_{1-12} -alkylcarbonyl, optionally substituted aryl, optionally substituted aryloxy carbonyl, optionally substituted arylcarbonyl, optionally

35 substituted heteroaryl, optionally substituted heteroaryloxy carbonyl, optionally substituted heteroarylcarbonyl, aminocarbonyl, mono- and di(C_{1-6} -alkyl)aminocarbonyl, amino- C_{1-6} -alkyl-aminocarbonyl, mono- and di(C_{1-6} -alkyl)amino- C_{1-6} -alkyl-aminocarbonyl; or wherein $N(R^1)R^2$ forms an optionally substituted nitrogen-containing heterocyclic ring;

40 X^1 and X^2 independently designates a substituent present 0-5 times, on Ar^1 and Ar^2 , respectively, wherein each X^1 and X^2 is independently selected from the group consisting of optionally substituted C_{1-12} -alkyl, optionally substituted C_{2-12} -alkenyl, optionally substituted C_{4-12} -alkadienyl, optionally substituted C_{6-12} -alkatrienyl, optionally substituted C_{2-12} -alkynyl,

- hydroxy, optionally substituted C₁₋₁₂-alkoxy, optionally substituted C₂₋₁₂-alkenyloxy, carboxy, optionally substituted C₁₋₁₂-alkoxycarbonyl, optionally substituted C₁₋₁₂-alkylcarbonyl, formyl, C₁₋₆-alkylsulphonylamino, optionally substituted aryl, optionally substituted aryloxycarbonyl, optionally substituted aryloxy, optionally substituted
- 5 arylcarbonyl, optionally substituted arylamino, arylsulphonylamino, optionally substituted heteroaryl, optionally substituted heteroaryloxycarbonyl, optionally substituted heteroaryloxy, optionally substituted heteroarylcarbonyl, optionally substituted heteroarylamino, optionally substituted (heteroarylalkyl)amino, optionally substituted (heteroarylalkyl)alkylamino, heteroarylsulphonylamino, optionally substituted
- 10 heterocyclyloxycarbonyl, optionally substituted heterocyclyloxy, optionally substituted heterocyclylcarbonyl, optionally substituted heterocyclylamino, heterocyclylsulphonylamino, amino, mono- and di(C₁₋₆-alkyl)amino, carbamoyl, mono- and di(C₁₋₆-alkyl)aminocarbonyl, amino-C₁₋₆-alkyl-aminocarbonyl, mono- and di(C₁₋₆-alkyl)amino-C₁₋₆-alkyl-aminocarbonyl, C₁₋₆-alkylcarbonylamino, cyano, guanidino,
- 15 carbamido, C₁₋₆-alkanoyloxy, C₁₋₆-alkylsulphonyl, C₁₋₆-alkylsulphinyl, C₁₋₆-alkylsulphonyloxy, aminosulfonyl, mono- and di(C₁₋₆-alkyl)aminosulfonyl, nitro, optionally substituted C₁₋₆-alkylthio, and halogen, where any nitrogen-bound C₁₋₆-alkyl is optionally substituted with hydroxy, C₁₋₆-alkoxy, C₂₋₆-alkenyloxy, carboxy, halogen, C₁₋₆-alkylthio, C₁₋₆-alkylsulphonyl-amino, or guanidine.
- 20
2. The compound of claim 1, wherein, when Ar¹ and Ar² are both phenyl, V is -CH=CH-, Z is CH₂, R¹ and R² are methyl or together form a morpholino group, and one of m and p is 2 while the other of m and p is 0, then
- 25 X¹ and X² independently designates 0-5, preferably 0-4, such as 0-3, e.g. 0-2, substituents, where such optional substituents independently are selected from optionally substituted C₁₋₁₂-alkyl, optionally substituted C₂₋₁₂-alkenyl, optionally substituted C₄₋₁₂-alkadienyl, optionally substituted C₆₋₁₂-alkatrienyl, optionally substituted C₂₋₁₂-alkynyl, 2-, 3-, 5-, or 6-hydroxy, optionally substituted C₁₋₁₂-alkoxy, optionally substituted C₂₋₁₂-
- 30 alkenyloxy, carboxy, optionally substituted C₁₋₁₂-alkoxycarbonyl, optionally substituted C₁₋₁₂-alkylcarbonyl, formyl, C₁₋₆-alkylsulphonylamino, optionally substituted aryl, optionally substituted aryloxycarbonyl, optionally substituted aryloxy, optionally substituted arylcarbonyl, optionally substituted arylamino, arylsulphonylamino, optionally substituted heteroaryl, optionally substituted heteroaryloxycarbonyl, optionally substituted
- 35 heteroaryloxy, optionally substituted heteroarylcarbonyl, optionally substituted heteroarylamino, optionally substituted (heteroarylalkyl)amino, optionally substituted (heteroarylalkyl)alkylamino, heteroarylsulphonylamino, optionally substituted heterocyclyloxycarbonyl, optionally substituted heterocyclyloxy, optionally substituted heterocyclylcarbonyl, optionally substituted heterocyclylamino,
- 40 heterocyclylsulphonylamino, amino, mono- and di(C₁₋₆-alkyl)amino, carbamoyl, mono- and di(C₁₋₆-alkyl)aminocarbonyl, amino-C₁₋₆-alkyl-aminocarbonyl, mono- and di(C₁₋₆-alkyl)amino-C₁₋₆-alkyl-aminocarbonyl, C₁₋₆-alkylcarbonylamino, cyano, guanidino, carbamido, C₁₋₆-alkanoyloxy, C₁₋₆-alkylsulphonyl, C₁₋₆-alkylsulphinyl, C₁₋₆-alkylsulphonyloxy, aminosulfonyl, mono- and di(C₁₋₆-alkyl)aminosulfonyl, nitro, optionally substituted

C₁₋₆-alkylthio, and halogen, where any nitrogen-bound C₁₋₆-alkyl may be substituted with hydroxy, C₁₋₆-alkoxy, C₂₋₆-alkenyloxy, , carboxy, halogen, C₁₋₆-alkylthio, C₁₋₆-alkylsulphonyl-amino, or guanidine;

5 provided that

when Ar¹ and Ar² are both phenyl, V is -CH=CH-, m is 1, p is 0, Y¹ is 2-CH₂NMe₂, X² is absent, and X¹ is present 1 time, then X¹ is not 4-methoxy,

10 when Ar¹ and Ar² are both phenyl, V is -CH=CH-, m is 1, p is 0, Y¹ is 3- or 4-CH₂NR¹R², wherein R¹ and R² are selected from hydrogen, methyl, and ethyl, and X¹ is present 0 or 1 time and is selected from 4-hydroxy or 4-alkoxy, and X² is present 0 or 1 time, then X² is not selected from the group consisting of nitro, dichloro, carboxymethoxy, methoxycarbonylmethoxy, ethoxycarbonylmethoxy, 2-carboxyethyl,

15

when Ar¹ and Ar² are both phenyl, V is -CH=CH-, m is 0, p is 1, Y² present 1 time and is 2- or 3-CH₂NR¹R², wherein R¹ and R² are selected from hydrogen, methyl, and ethyl, X² is present 0 or 1 time and is 4-OH, and X¹ is present 0 or 1 time, then X¹ is not ethoxycarbonylmethoxy or dichloro.

20

3. The compound according to claim 1, wherein R¹ and R² independently are selected from hydrogen, optionally substituted C₁₋₁₂-alkyl, optionally substituted C₂₋₁₂-alkenyl, optionally substituted C₂₋₁₂-alkynyl, optionally substituted C₁₋₁₂-alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, aminocarbonyl, mono- and di(C₁₋₆-alkyl)aminocarbonyl, amino-C₁₋₆-alkyl-aminocarbonyl, and mono- and di(C₁₋₆-alkyl)amino-C₁₋₆-alkyl-aminocarbonyl.

25

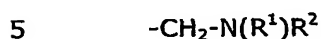
4. The compound according to any of the preceding claims, wherein X¹ and X² independently designates 0-4, such as 0-3, e.g. 0-2, substituents, where such optional substituents independently are selected from optionally substituted C₁₋₁₂-alkyl, hydroxy,

30 optionally substituted C₁₋₁₂-alkoxy, optionally substituted C₂₋₁₂-alkenyloxy, carboxy, optionally substituted C₁₋₁₂-alkylcarbonyl, formyl, C₁₋₆-alkylsulphonylamino, optionally substituted aryl, optionally substituted aryloxy, optionally substituted arylcarbonyl, optionally substituted arylamino, arylsulphonylamino, optionally substituted heteroaryl, optionally substituted heteroarylamino, optionally substituted (heteroarylalkyl)amino, optionally substituted (heteroarylalkyl)alkylamino, amino, mono- and di(C₁₋₆-alkyl)amino, optionally substituted heteroarylcarbonyl, optionally substituted heteroaryloxy, heteroarylsulphonylamino, optionally substituted heterocycloxy, optionally substituted heterocyclylamino, carbamoyl, mono- and di(C₁₋₆-alkyl)aminocarbonyl, amino-C₁₋₆-alkyl-aminocarbonyl, mono- and di(C₁₋₆-alkyl)amino-C₁₋₆-alkyl-aminocarbonyl, guanidino, carbamido, C₁₋₆-alkylsulphonyl, C₁₋₆-alkylsulphonyl, C₁₋₆-alkylsulphonyloxy, optionally substituted C₁₋₆-alkylthio, aminosulfonyl, mono- and di(C₁₋₆-alkyl)aminosulfonyl, and halogen, where any nitrogen-bound C₁₋₆-alkyl may be substituted with at least one substituent selected from the group consisting of hydroxy, C₁₋₆-alkoxy, and halogen.

40

5. The compound according to any of the preceding claims, wherein R^1 and R^2 independently are selected from hydrogen, optionally substituted C_{1-6} -alkyl, optionally substituted C_{1-6} -alkylcarbonyl, heteroarylcarbonyl, aminocarbonyl, mono- and di(C_{1-6} -alkyl)aminocarbonyl, amino- C_{1-6} -alkyl-aminocarbonyl, mono- and di(C_{1-6} -alkyl)amino- C_{1-6} -alkyl-aminocarbonyl.
6. The compound according to any of the preceding claims, wherein X^1 and X^2 independently designates 0-3, e.g. 0-2, substituents, where such optional substituents independently are selected from optionally substituted C_{1-6} -alkyl, hydroxy, optionally substituted C_{1-6} -alkoxy, carboxy, optionally substituted C_{1-6} -alkylcarbonyl, C_{1-6} -alkylsulphonylamino, optionally substituted aryl, optionally substituted aryloxy, optionally substituted arylamino, amino, mono- and di(C_{1-6} -alkyl)amino, arylsulphonylamino, optionally substituted heteroaryl, optionally substituted heteroarylamino, optionally substituted (heteroarylalkyl)amino, optionally substituted (heteroarylalkyl)alkylamino, heteroarylsulphonylamino, carbamoyl, C_{1-6} -alkylcarbonylamino, guanidino, carbamido, optionally substituted C_{1-6} -alkylthio, optionally substituted heterocycloxy, optionally substituted heterocyclamino and halogen, where any nitrogen-bound C_{1-6} -alkyl may be substituted with at least one substituent selected from the group consisting of hydroxy, C_{1-6} -alkoxy, and halogen.
7. The compound according to any of the preceding claims, wherein V designates $-\text{CH}=\text{CH}-$.
8. The compound according to any of the preceding claims, wherein at least one of Ar^1 and Ar^2 , preferably both, are aryl, particularly phenyl.
9. The compound according to claim 8, wherein both of Ar^1 and Ar^2 are phenyl rings, m is 1 or 2, and p is 0.
10. The compound according to any of the preceding claims, wherein X^2 represents at least one substituent selected from C_{1-6} -alkyl, C_{1-6} -alkoxy, C_{1-6} -alkylcarbonyl, optionally substituted aryl, optionally substituted aryloxy, optionally substituted arylamino, amino, mono- and di(C_{1-6} -alkyl)amino, optionally substituted heteroaryl, optionally substituted heteroarylamino, optionally substituted (heteroarylalkyl)amino, optionally substituted (heteroarylalkyl)alkylamino, , optionally substituted C_{1-6} -alkylthio, optionally substituted heterocycloxy, optionally substituted heterocyclamino and halogen.
11. The compound according to any of claims 1-8 and 10, wherein at least one of Ar^1 and Ar^2 is selected from the group consisting of thiazolyl, pyrrolyl, imidazolyl, pyrazolyl, pyridinyl, pyrimidinyl, pyrazinyl, pyridazinyl, thienyl, quinolyl, isoquinolyl, and indolyl.
12. The compound according to any of the preceding claims, wherein Z is $-(\text{CH}_2)_n-$ wherein n is 1-4, such as 1-3.

13. The compound according to any of the preceding claims, wherein one of Y¹ and Y² represents a substituent of the formula



wherein R¹ and R² are selected from hydrogen and C₁₋₆-alkyl.

14. The compound according to claim 13, wherein V is -CH=CH-, and Ar¹ and Ar² both are
10 phenyl rings.

15. The compound according to any of claims 13 and 14, wherein Y¹ represents the substituent of the formula -CH₂-N(R¹)R².

15 16. The compound according to claim 1, selected from the group consisting of:

- 1-(4-Methoxy-phenyl)-3-(4-morpholin-4-ylmethyl-phenyl)-propenone,
3-(4-Diethylaminomethyl-phenyl)-1-(4-methoxy-phenyl)-propenone,
1-(4-Methoxy-phenyl)-3-(4-propylaminomethyl-phenyl)-propenone,
20 3-(4-Dimethylaminomethyl-phenyl)-1-(4-methoxy-phenyl)-propenone,
3-{4-[(2-Dimethylamino-ethylamino)-methyl]-phenyl}-1-(4-methoxy-phenyl)-propenone,
1-(4-Methoxy-phenyl)-3-(4-piperidin-1-ylmethyl-phenyl)-propenone,
3-{4-[(3-Dimethylamino-propylamino)-methyl]-phenyl}-1-(4-methoxy-phenyl)-propenone,
3-(4-Dibutylaminomethyl-phenyl)-1-(4-methoxy-phenyl)-propenone,
25 3-{4-[(4-Diethylamino-1-methyl-butylamino)-methyl]-phenyl}-1-(4-methoxy-phenyl)-
propenone,
3-{3-[(2-Dimethylamino-ethylamino)-methyl]-phenyl}-1-(4-methoxy-phenyl)-propenone,
3-(2,4-Dichloro-phenyl)-1-(4-dimethylaminomethyl-phenyl)-propenone,
1-(4-Methoxy-phenyl)-3-(3-propylaminomethyl-phenyl)-propenone,
30 1-(4-Methoxy-phenyl)-3-[3-(4-methyl-piperazin-1-ylmethyl)-phenyl]-propenone,
1-(4-Methoxy-phenyl)-3-[3-(4-methyl-[1,4]diazepan-1-ylmethyl)-phenyl]-propenone,
3-(3-Dimethylaminomethyl-phenyl)-1-(4-methoxy-phenyl)-propenone,
1-(2-Bromo-phenyl)-3-(2-dimethylaminomethyl-phenyl)-propenone,
3-{3-[(3-Dimethylamino-propylamino)-methyl]-phenyl}-1-(4-methoxy-phenyl)-propenone,
35 3-(2,5-Dimethoxy-phenyl)-1-(4-dimethylaminomethyl-phenyl)-propenone,
3-(4-Dibutylamino-phenyl)-1-(3-dimethylaminomethyl-phenyl)-propenone,
3-(2,4-Dichloro-phenyl)-1-(3-dimethylaminomethyl-phenyl)-propenone,
3-(2,4-Dichloro-phenyl)-1-[3-(4-methyl-piperazin-1-ylmethyl)-phenyl]-propenone ,
3-(2,4-Dichloro-phenyl)-1-{3-[(3-dimethylamino-propylamino)-methyl]-phenyl}-propenone ,
40 3-(2,5-Dimethoxy-phenyl)-1-{4-[(3-dimethylamino-propylamino)-methyl]-phenyl}-propenone,
3-(3-Dimethylaminomethyl-phenyl)-1-(2-fluoro-4-methoxy-phenyl)-propenone ,
3-(4-Dibutylamino-phenyl)-1-[4-(4-methyl-piperazin-1-ylmethyl)-phenyl]-propenone,

- 3-(2,4-Dichloro-phenyl)-1-[2-(4-methyl-piperazin-1-ylmethyl)-phenyl]-propenone,
3-(2,4-Dichloro-phenyl)-1-(2-dimethylaminomethyl-phenyl)-propenone,
3-(2,5-Dimethoxy-phenyl)-1-[2-(4-methyl-piperazin-1-ylmethyl)-phenyl]-propenone,
3-(2,5-Dimethoxy-phenyl)-1-(2-dimethylaminomethyl-phenyl)-propenone,
5 3-(4-Dibutylamino-phenyl)-1-(2-dimethylaminomethyl-phenyl)-propenone,
3-(4-Dibutylamino-phenyl)-1-[2-(4-methyl-piperazin-1-ylmethyl)-phenyl]-propenone,
3-(3-Dimethylaminomethyl-phenyl)-1-pyridin-2-yl-propenone,
3-(4-Dibutylamino-phenyl)-1-(4-dimethylaminomethyl-phenyl)-propenone,
3-[5-(1,1-Dimethyl-allyl)-2-methoxy-phenyl]-1-(2-dimethylaminomethyl-phenyl)-propenone,
10 1-{2-[(tert-Butyl-methyl-amino)-methyl]-phenyl}-3-(2,4-dichloro-phenyl)-propenone,
Acetic acid 1-{2-[3-(2,4-dichloro-phenyl)-acryloyl]-benzyl}-piperidin-4-yl ester,
3-(2,4-Dichloro-phenyl)-1-(2-morpholin-4-ylmethyl-phenyl)-propenone,
3-(2,4-Dichloro-phenyl)-1-(2-{[(2-dimethylamino-ethyl)-methyl-amino]-methyl}-phenyl)-
propenone,
15 3-(4-Diethylaminomethyl-phenyl)-1-o-tolyl-propenone,
3-(3-Dimethylaminomethyl-phenyl)-1-(2-methoxy-phenyl)-propenone,
3-(4-Chloro-phenyl)-1-(2-dimethylaminomethyl-phenyl)-propenone,
3-(2,4-Difluoro-phenyl)-1-(2-dimethylaminomethyl-phenyl)-propenone,
3-(3-Butylamino-phenyl)-1-(2-dimethylaminomethyl-phenyl)-propenone,
20 3-(4-Diethylaminomethyl-phenyl)-1-(2-dimethylaminomethyl-phenyl)-propenone,
3-(2,4-Dichloro-phenyl)-1-(2-diethylaminomethyl-phenyl)-propenone,
3-(2,5-Dimethoxy-phenyl)-1-[4-(4-methyl-piperazin-1-ylmethyl)-phenyl]-propenone,
1-(2-Dimethylaminomethyl-phenyl)-3-(4-hydroxy-2-methoxy-5-propyl-phenyl)-propenone,
3-(2,4-Dichloro-phenyl)-1-(2-piperazin-1-ylmethyl-phenyl)-propenone,
25 3-(2,5-Dimethoxy-phenyl)-1-(2-piperazin-1-ylmethyl-phenyl)-propenone,
1-(2-Dimethylaminomethyl-phenyl)-3-(4-dipropylamino-2-fluoro-phenyl)-propenone,
3-(2,4-Dichloro-phenyl)-1-[2-(4-hydroxy-piperidin-1-ylmethyl)-phenyl]-propenone,
1-(3-Diethylaminomethyl-phenyl)-3-(2,5-dimethoxy-phenyl)-propenone,
3-(2-{[(2-Dimethylamino-ethyl)-methyl-amino]-methyl}-phenyl)-1-[2-(4-methyl-piperazin-1-
30 ylmethyl)-phenyl]-propenone,
3-(2,4-Dimethoxy-phenyl)-1-[2-(4-methyl-piperazin-1-ylmethyl)-phenyl]-propenone,
3-(4-Imidazol-1-yl-phenyl)-1-[2-(4-methyl-piperazin-1-ylmethyl)-phenyl]-propenone,
1-[2-(4-Methyl-piperazin-1-ylmethyl)-phenyl]-3-pyridin-2-yl-propenone,
1-[2-(4-Methyl-piperazin-1-ylmethyl)-phenyl]-3-pyridin-3-yl-propenone,
35 1-[2-(4-Methyl-piperazin-1-ylmethyl)-phenyl]-3-pyridin-4-yl-propenone,
1-[2-(4-Methyl-piperazin-1-ylmethyl)-phenyl]-3-(1-methyl-1H-pyrrol-2-yl)-propenone,
1-[2-(4-Methyl-piperazin-1-ylmethyl)-phenyl]-3-(1H-pyrrol-2-yl)-propenone,
1-[2-(4-Methyl-piperazin-1-ylmethyl)-phenyl]-3-thiophen-2-yl-propenone,
1,3-Bis-(2-diethylaminomethyl-phenyl)-propenone,
40 3-(2,4-Dichloro-phenyl)-1-(3-diethylaminomethyl-phenyl)-propenone,
3-(4-Dimethylaminomethyl-phenyl)-1-[2-(4-methyl-piperazin-1-ylmethyl)-phenyl]-propenone,

- 3-(3-Dimethylaminomethyl-phenyl)-1-[2-(4-methyl-piperazin-1-ylmethyl)-phenyl]-propenone,
3-(3-Dimethylaminomethyl-phenyl)-1-(2-dimethylaminomethyl-phenyl)-propenone,
3-(2-Diethylaminomethyl-phenyl)-1-(2-dimethylaminomethyl-phenyl)-propenone,
3-[3-(Butyl-ethyl-amino)-phenyl]-1-(2-dimethylaminomethyl-phenyl)-propenone,
5 3-(3-[(2-Dimethylamino-ethyl)-methyl-amino]-methyl)-phenyl)-1-(4-methoxy-phenyl)-
propenone,
3-(2-Dimethylaminomethyl-phenyl)-1-[2-(4-methyl-piperazin-1-ylmethyl)-phenyl]-propenone,
3-(2-Diethylaminomethyl-phenyl)-1-[2-(4-methyl-piperazin-1-ylmethyl)-phenyl]-propenone,
1,3-Bis-(2-dimethylaminomethyl-phenyl)-propenone,
10 3-(4-Dimethylaminomethyl-phenyl)-1-(2-dimethylaminomethyl-phenyl)-propenone,
3-(1H-Indol-5-yl)-1-[2-(4-methyl-piperazin-1-ylmethyl)-phenyl]-propenone,
3-(2,4-Dimethoxy-phenyl)-1-(2-dimethylaminomethyl-phenyl)-propenone,
1-(2-Dimethylaminomethyl-phenyl)-3-(4-imidazol-1-yl-phenyl)-propenone,
1-[2-(4-Methyl-piperazin-1-ylmethyl)-phenyl]-3-[3-(pyridin-3-ylamino)-phenyl]-propenone,
15 3-[2-(4-Methyl-piperazin-1-ylmethyl)-phenyl]-1-(2,3,4-trimethoxy-phenyl)-propenone,
3-{3-[2-(4-Methyl-piperazin-1-ylmethyl)-phenyl]-3-oxo-propenyl}-benzoic acid,
1-(2-Dimethylaminomethyl-phenyl)-3-(2,4-dimethyl-phenyl)-propenone,
3-(2,4-Dimethyl-phenyl)-1-[2-(4-methyl-piperazin-1-ylmethyl)-phenyl]-propenone,
1-(2-Dimethylaminomethyl-phenyl)-3-(1-methyl-1H-pyrrol-2-yl)-propenone,
20 3-[4-Chloro-5-(1,1-dimethyl-allyl)-2-methoxy-phenyl]-1-[2-(4-methyl-piperazin-1-ylmethyl)-
phenyl]-propenone,
1-(2-Dimethylaminomethyl-phenyl)-3-(4-dipropylamino-2-ethoxy-phenyl)-propenone,
1-(2-Dimethylaminomethyl-phenyl)-3-[2-(4-methyl-piperazin-1-ylmethyl)-phenyl]-propenone,
3-(3-Dimethylaminomethyl-4-methoxy-phenyl)-1-(4-methoxy-phenyl)-propenone,
25 1-(2-Methoxy-phenyl)-3-[2-(4-methyl-piperazin-1-ylmethyl)-phenyl]-propenone,
1-(2-Fluoro-4-methoxy-phenyl)-3-[2-(4-methyl-piperazin-1-ylmethyl)-phenyl]-propenone,
3-(2-[(2-Dimethylamino-ethyl)-methyl-amino]-methyl)-phenyl)-1-(2-dimethylaminomethyl-
phenyl)-propenone,
1-(2-Dimethylaminomethyl-phenyl)-3-[3-(pyridin-3-ylamino)-phenyl]-propenone,
30 3-(2-Dimethylaminomethyl-phenyl)-1-(3-dimethylaminomethyl-phenyl)-propenone,
1-(3-Dimethylaminomethyl-phenyl)-3-(3-morpholin-4-ylmethyl-phenyl)-propenone,
1-(3-Dimethylaminomethyl-phenyl)-3-[2-(4-methyl-piperazin-1-ylmethyl)-phenyl]-propenone,
1-(3-Dimethylaminomethyl-phenyl)-3-(4-pyridin-2-yl-phenyl)-propenone,
1-(4-Methoxy-phenyl)-3-(3-{[methyl-(2-methylamino-ethyl)-amino]-methyl}-phenyl)-
35 propenone,
3-(2-Dimethylaminomethyl-phenyl)-1-(2-fluoro-4-methoxy-phenyl)-propenone,
3-(2-Dimethylaminomethyl-phenyl)-1-(2,3,4-trimethoxy-phenyl)-propenone,
3-(3-[(2-Hydroxy-ethyl)-methyl-amino]-methyl)-phenyl)-1-(4-methoxy-phenyl)-propenone,
1-(4-Methoxy-phenyl)-3-(3-methylaminomethyl-phenyl)-propenone,
40 1-(3-Dimethylaminomethyl-phenyl)-3-(4-methoxy-biphenyl-3-yl)-propenone,
3-{3-[2-Methoxy-ethylamino]-methyl}-phenyl)-1-(4-methoxy-phenyl)-propenone,

- 1-(2-Dimethylaminomethyl-phenyl)-3-[2-methoxy-5-(pyridin-3-ylamino)-phenyl]-propenone,
3-(2,4-Dichloro-phenyl)-1-(2-dimethylaminomethyl-phenyl)-propanone,
3-[4-(2-Dimethylamino-ethyl)-phenyl]-1-(2-fluoro-4-methoxy-phenyl)-propenone,
1-(4-Methoxy-phenyl)-3-(3-piperazin-1-ylmethyl-phenyl)-propenone,
5 3-(3-{{(2-Methoxy-ethyl)-methyl-amino}-methyl}-phenyl)-1-(4-methoxy-phenyl)-propenone,
3-(3-{{(2-3-{{(2-Hydroxy-ethylamino)-methyl}-phenyl}-1-(4-methoxy-phenyl)-propenone,
3-(4-Dimethylaminomethyl-biphenyl-3-yl)-1-(2-fluoro-4-methoxy-phenyl)-propenone,
3-(4-Dibutylamino-phenyl)-1-(3-dimethylaminomethyl-4-methoxy-phenyl)-propenone,
3-[2-(2-Dimethylamino-ethyl)-phenyl]-1-(4-methoxy-phenyl)-propenone,
10 3-[2-(2-Dimethylamino-ethyl)-phenyl]-1-(2-fluoro-4-methoxy-phenyl)-propenone,
3-[2-(2-Dimethylamino-ethyl)-phenyl]-1-(2,3,4-trimethoxy-phenyl)-propenone,
3-[4-(2-Dimethylamino-ethyl)-phenyl]-1-(4-methoxy-phenyl)-propenone,
3-[4-(2-Dimethylamino-ethyl)-phenyl]-1-(2,3,4-trimethoxy-phenyl)-propenone,
3-(2,5-Dimethoxy-phenyl)-1-[4-(2-dimethylamino-ethyl)-phenyl]-propenone,
15 1-[4-(2-Dimethylamino-ethyl)-phenyl]-3-(4-methoxy-biphenyl-3-yl)-propenone,
3-(4,2'-Dimethoxy-biphenyl-3-yl)-1-[4-(2-dimethylamino-ethyl)-phenyl]-propenone,
3-(4-Dimethylaminomethyl-biphenyl-3-yl)-1-(2,3,4-trimethoxy-phenyl)-propenone,
3-(2,5-Dimethoxy-phenyl)-1-(3-dimethylaminomethyl-4-hydroxy-phenyl)-propenone,
3-[4-Chloro-5-(1,1-dimethyl-allyl)-2-methoxy-phenyl]-1-(3-dimethylaminomethyl-4-hydroxy-
20 phenyl)-propenone,
3-(2,4-Dichloro-phenyl)-1-(3-dimethylaminomethyl-4-hydroxy-phenyl)-propenone,
3-(2,4-Dichloro-phenyl)-1-(3-dimethylaminomethyl-4-methoxy-phenyl)-propenone,
3-[4-Chloro-5-(1,1-dimethyl-allyl)-2-methoxy-phenyl]-1-(3-dimethylaminomethyl-4-methoxy-
phenyl)-propenone,
25 3-(3',5'-Dichloro-4,6-dimethoxy-biphenyl-3-yl)-1-(3-dimethylaminomethyl-4-methoxy-phenyl)-
propenone,
1-(3-Dimethylaminomethyl-4-methoxy-phenyl)-3-(4-methoxy-biphenyl-3-yl)-propenone,
3-(2,4-Dichloro-phenyl)-1-(2-dimethylaminomethyl-4-methoxy-phenyl)-propenone,
3-(3-Dibutylamino-phenyl)-1-(3-dimethylaminomethyl-4-hydroxy-phenyl)-propenone,
30 3-(3-Dibutylamino-phenyl)-1-(3-dimethylaminomethyl-4-methoxy-phenyl)-propenone,
1-(2-Dimethylaminomethyl-4-methoxy-phenyl)-3-{3-[(pyridin-3-ylmethyl)-amino]-phenyl}-
propenone,
1-(2-Dimethylaminomethyl-phenyl)-3-{3-[(pyridin-3-ylmethyl)-amino]-phenyl}-
propenone,
35 1-(2-Dimethylaminomethyl-phenyl)-3-[3-(pyridin-4-ylamino)-phenyl]-propenone,
1-(2-Dimethylaminomethyl-4-methoxy-phenyl)-3-[3-(pyridin-4-ylamino)-phenyl]-propenone,
3-(3,5-Di-tert-butyl-2-methoxy-phenyl)-1-[4-hydroxy-3-(4-methyl-piperazin-1-ylmethyl)-
phenyl]-propenone,
3-(5-tert-Butyl-2-methoxy-phenyl)-1-(3-dimethylaminomethyl-4-hydroxy-phenyl)-propenone,
40 3-(3,5-Di-tert-butyl-2-methoxy-phenyl)-1-(3-dimethylaminomethyl-4-hydroxy-phenyl)-
propenone,

3-[5-(1,1-Dimethyl-allyl)-4-hydroxy-2-methoxy-phenyl]-1-(2-dimethylaminomethyl-phenyl)-propenone,

3-[5-(1,1-Dimethyl-allyl)-4-hydroxy-2-methoxy-phenyl]-1-(3-dimethylaminomethyl-phenyl)-propenone,

5 and salts thereof.

17. A composition comprising a compound as defined in any of the claims 1-16 and a pharmaceutically acceptable carrier.

10 18. A compound as defined in any of the claims 1-16 for use as a medicament.

19. Use of a compound as defined in any of the claims 1-16, for the preparation of a pharmaceutical composition for the treatment of bacterial infections.

15

20. The use according to claim 19, wherein the bacterial infection is associated with bacteria selected from the group consisting of Gram-positive bacteria, Gram-negative bacteria, microaerophilic bacteria and anaerobic bacteria.

20 21. The use according to claim 20, wherein the bacteria is a microaerophilic bacteria associated with gastric disease, such as *Helicobacter pylori*.

22. The use according to claim 20, wherein the bacteria is selected from antibiotic-sensitive and -resistant strains of *S.aureus*.

25

23. The use according to claim 20, wherein the bacteria is selected from antibiotic-sensitive and -resistant strains of *E.faecium*.

24. The use according to claim 20, wherein the bacteria is selected from a *S.pneumoniae* and *S.pyogenes*.

30

25. The use according to claim 20, wherein the bacteria is a member of *Enterobacteriaceae*, e.g. *E.coli*.

35 26. The use according to claim 20, wherein the bacteria is a pathogenic anaerobic bacteria, such as *Bacteroides fragilis* or *Clostridium species*.

27. Use of a compound as defined in any of claims 1-16 for the preparation of a pharmaceutical composition for the treatment of infections associated with protozoa in a mammal.

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28. The use according to claim 27, wherein the infection is associated with a protozoa selected from *Plasmodium falciparum*, *Plasmodium vivax*, *Plasmodium ovale* and *Plasmodium malariae*.

29. Use of a compound as defined in any of claims 1-16 for the preparation of a pharmaceutical composition for the treatment of infections associated with *Leishmania spp.* in a mammal.

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30. The use according to claim 29, wherein the infection is cutaneous and/or visceral.

31. A method of predicting whether a chemical compound has a potential inhibitory effect against a microorganism selected from *Helicobacter pylori* and *Plasmodium falciparum*,

10 said method comprising preparing a mixture of a dihydroorotate dehydrogenase, a substrate for dihydroorotate dehydrogenase and the chemical compound, measuring the enzymatic activity of dihydroorotate dehydrogenase (A), comparing the enzymatic activity of dihydroorotate dehydrogenase (A) with the standard activity of dihydroorotate dehydrogenase (B) corresponding to the activity of a dihydroorotate dehydrogenase in a

15 similar sample, but without the chemical compound, predicting that the chemical compound has a potential inhibitory effect against *Helicobacter pylori* and *Plasmodium falciparum* if A is significantly lower than B.

32. The method according to claim 31, wherein the chemical compound is a chalcone derivative.

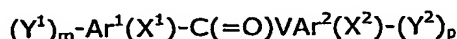
20

33. The method according to claim 32, wherein the chemical compound is a chalcone derivative as defined in any of the claims 1-16.

25 34. A process for preparation of a compound as defined in any of claims 1-16, and wherein V is -CH=CH-, comprising the steps

- (a) combining a ketone derivative of formula $(Y^1)_m-Ar^1(X^1)-C(=O)-CH_3$ with an aldehyde derivative of formula $HCO-Ar^2(X^2)-(Y^2)_p$ so as to form a mixture,
- (b) isolating a compound of the formula

30



35. The process of claim 34, wherein the mixture further comprises a suitable solvent.

35 36. The process according to any of claims 34-35, wherein the mixture further comprises a catalyst.

37. The process according to claim 36, wherein the catalyst is a base.

40 38. The process according to claim 36, wherein the catalyst is an acid.

39. A method for treating bacterial infections in a mammal comprising administration of a compound as defined in any of claims 1-16.

40. The method according to claim 39, wherein the bacterial infection is associated with bacteria selected from Gram-positive bacteria, Gram-negative bacteria, microaerophilic bacteria and anaerobic bacteria.

5 41. The method according to claim 40, wherein the bacteria is a microaerophilic bacteria, associated with gastric disease, such as *Helicobacter pylori*.

42. The method according to claim 40, wherein the bacteria is selected from antibiotic-sensitive and -resistant strains of *S.aureus*.

10

43. The method according to claim 40, wherein the bacteria is selected from antibiotic-sensitive and -resistant strains of *E.faecium*.

15 44. The method according to claim 40, wherein the bacteria is selected from *S.pneumoniae* and *S.pyogenes*.

45. The method according to claim 40, wherein the bacteria is a member of *Enterobacteriaceae*, e.g. *E.coli*.

20 46. The method according to claim 40, wherein the bacteria is a pathogenic anaerobic bacteria, such as *Bacteroides fragilis* or *Clostridium species*.

47. A method for treatment of infections associated with protozoa in a mammal comprising administration of a compound as defined in any of claims 1-16.

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48. The method according to claim 47, wherein the infection is associated with a protozoa selected from *Plasmodium falciparum*, *Plasmodium vivax*, *Plasmodium ovale* and *Plasmodium malariae*.

30 49. A method for treatment of infections associated with *Leishmania spp.* in a mammal comprising administration of a compound as defined in any of claims 1-16.

50. The method according to claim 49, wherein the infection is cutaneous and/or visceral.